

IN THE CLAIMS:

Please cancel claims 1, 3, 4, 6, 7, 9 and 10 without prejudice to or disclaimer of the subject matter recited therein.

Please amend claims 2, 5, 8 and 11 and add new claims 12-13 as follows:

LISTING OF CURRENT CLAIMS

Claim 1. (Canceled)

Claim 2. (Currently Amended) The filtration device with cross-flow function of claim 4, 12, wherein the inlet includes a nozzle for accelerating flow velocity into the diffuser.

Claims. 3-4. (Canceled)

Claim 5. (Currently Amended) The filtration device with cross-flow function of claim 4, 12, wherein the case includes a drain outlet for adjusting impurity and particle concentrations of the fluid inside the filter.

Claims 6-7. (Canceled)

Claim 8. (Currently Amended) The filtration method with cross-flow function of claim 7, 13, wherein the inlet is a nozzle for accelerating fluid flow velocity.

Claims 9-10. (Canceled)

Claim 11. (Currently Amended) The filtration method with cross-flow function of claim 9, 13, wherein the case includes a drain outlet for adjusting the concentration of impurity and particle concentrations of the fluid inside the filter.

Claim 12. (New) A filtration device with a cross-flow function comprising:

- a) a case having:
 - i) a case inlet;
 - ii) a case outlet; and
 - iii) at least one support;
- b) a filter located in the case;
- c) a diffuser located on an interior of the filter and having:
 - i) a diffuser inlet, an end of the diffuser adjacent to the diffuser inlet being located adjacent to each of the at least one support;
 - ii) a diffuser outlet;
 - iii) a throat section located on an interior thereof between the diffuser inlet and the diffuser outlet;
 - iv) a tapered section located on an interior thereof between the diffuser inlet and the throat section; and
 - v) a flared section located between the located on an interior thereof between the throat section and the diffuser outlet; and
- d) a passage formed between an exterior of the diffuser and an interior of the filter communicating with the diffuser outlet and the diffuser inlet, such that the cross-flow function includes liquid flowing from the diffuser outlet, through the passage, and into the diffuser inlet.

Claim 13. (New) A filtration method with cross-flow function, which comprises the steps of:

- a) providing a case having a case inlet, a case outlet, and at least one support;
- b) positioning a filter in the case;
- c) positioning a diffuser on an interior of the filter with the diffuser having a diffuser inlet located on an end of the diffuser adjacent to each of the at least one support, a diffuser outlet, and a throat section, a tapered section, and a flared section located on an interior thereof between the diffuser inlet and the diffuser outlet;

- d) forming a passage between an exterior of the diffuser and an interior of the filter communicating with the diffuser outlet and the diffuser inlet, such that the cross-flow function includes liquid flowing from the diffuser outlet, through the passage, and into the diffuser inlet;
- 15 e) moving fluid from the diffuser inlet into the tapered section to produce a local low-pressure and entraining fluid flowing outside the diffuser into the tapered section, and then through the throat section;
- f) moving fluid from the throat section into the flared section gradually decreasing flow velocity and converting kinetic energy into pressure energy to form a local high-pressure region at the diffuser outlet; and
- 20 g) moving fluid from the diffuser through the passage and entraining fluid back into the tapered section to form the circulating cross-flow.